GenCore version 5.1.6

OM nucleic - protein search, using frame_plus_n2p model

Run on: February 1, 2005, 13:06:53 ; Search time 120 Seconds
(without alignments)
3461.738 Million cell updates/sec

Title: US-10-659-782A-11
Perfect score: 1030
Sequence: 1 actctggatgggtgctgttt.....tggcagcgaggagggtgggg 579

Scoring table: BLOSUM62
Xgapop 10.0 , Xgapext 0.5
Ygapop 10.0 , Ygapext 0.5
Fgapop 6.0 , Fgapext 7.0
Delop 6.0 , Delext 7.0

Searched: 2002273 seqs, 358729299 residues

Total number of hits satisfying chosen parameters: 4004546

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Command line parameters:
-MODEL=frame+_n2p.model -DEV=x1p
-Q=/cgn2_1/USPTO_spool_p/US10659782/runat_01022005_130351_14247/app_query.fasta_1.775
-DB=A_Geneseq_23Sep04 -QFMT=fastan -SUFFIX=rag -MINMATCH=0.1 -LOOPCL=0
-LOOPEXT=0 -UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi
-LIST=45 -DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15
-MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=2000000000
-USER=US10659782_@CGN_1_1_224_@runat_01022005_130351_14247 -NCPU=6 -ICPU=3
-NO_MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7

Database : A_Geneseq_23Sep04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	379	36.8	126	4	AAM40676	Aam40676 Human pol
2	326	31.7	91	6	AAE33410	Aae33410 Human exo
3	326	31.7	117	2	AAW87991	Aaw87991 Protein d
4	326	31.7	117	3	AAY87236	Aay87236 Human sig
5	326	31.7	117	4	AAB20101	Aab20101 Zsig33 pr
6	326	31.7	117	4	AAB62649	Aab62649 Human zsi
7	326	31.7	117	4	AAM38890	Aam38890 Human pol
8	326	31.7	117	4	AAB60511	Aab60511 Human ghr
9	326	31.7	117	5	ABB78319	Abb78319 Amino aci
10	326	31.7	117	5	AAE23838	Aae23838 Human zsi
11	326	31.7	117	5	AAE15883	Aae15883 Human zsi
12	326	31.7	117	6	ABU58046	Abu58046 Human PRO
13	326	31.7	117	6	ABU59124	Abu59124 Novel hum
14	326	31.7	117	6	ABU82636	Abu82636 Human sec
15	326	31.7	117	6	ABO17836	Abo17836 Novel hum
16	326	31.7	117	6	ABU60555	Abu60555 Human sec
17	326	31.7	117	6	ABU13937	Abu13937 Human PRO
18	326	31.7	117	6	ABU81090	Abu81090 Human PRO
19	326	31.7	117	6	ABU72522	Abu72522 Novel hum
20	326	31.7	117	6	ABU66790	Abu66790 Human PRO
21	326	31.7	117	6	ABU59871	Abu59871 Novel sec
22	326	31.7	117	6	ABU59271	Abu59271 Human sec
23	326	31.7	117	6	ABO25968	Abo25968 Human PRO
24	326	31.7	117	6	ABO25061	Abo25061 Human sec
25	326	31.7	117	6	ABU58977	Abu58977 Human sec
26	326	31.7	117	6	ABU92355	Abu92355 Novel hum
27	326	31.7	117	6	AAE33409	Aae33409 Human pre
28	326	31.7	117	6	ABU59420	Abu59420 Novel hum
29	326	31.7	117	6	ABU67066	Abu67066 Human sec
30	326	31.7	117	6	ABU92186	Abu92186 Novel hum
31	326	31.7	117	6	ABU10892	Abu10892 Human PRO
32	326	31.7	117	6	ABU81644	Abu81644 Novel hum
33	326	31.7	117	6	ABU88583	Abu88583 Human sec
34	326	31.7	117	6	ABO34097	Abo34097 Human PRO
35	326	31.7	117	6	ADA45961	Ada45961 Novel hum
36	326	31.7	117	6	ADA76392	Ada76392 Human PRO
37	326	31.7	117	6	ADA19042	Ada19042 Human PRO
38	326	31.7	117	6	ADA61665	Ada61665 Homo sapi
39	326	31.7	117	6	ADB19450	Adb19450 Novel hum
40	326	31.7	117	6	ADB27991	Adb27991 Human PRO
41	326	31.7	117	6	ADA86470	Ada86470 Novel hum
42	326	31.7	117	6	ADB16034	Adb16034 Human PRO
43	326	31.7	117	6	ADA37779	Ada37779 Human sec
44	326	31.7	117	6	ADA47820	Ada47820 Human PRO
45	326	31.7	117	6	ADA21465	Ada21465 Human sec

ALIGNMENTS

RESULT 1
AAM40676
ID AAM40676 standard; protein; 126 AA.
XX
AC AAM40676;
XX
DT 22-OCT-2001 (first entry)
XX
DE Human polypeptide SEQ ID NO 5607.
XX
KW Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
KW peripheral nervous system; neuropathy; central nervous system; CNS;
KW Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
KW amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
KW chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
KW leukaemia.
XX
OS Homo sapiens.
XX
PN WO200153312-A1.
XX
PD 26-JUL-2001.
XX
PF 26-DEC-2000; 2000WO-US034263.
XX
PR 23-DEC-1999; 99US-00471275.
PR 21-JAN-2000; 2000US-00488725.
PR 25-APR-2000; 2000US-00552317.
PR 20-JUN-2000; 2000US-00598042.
PR 19-JUL-2000; 2000US-00620312.
PR 03-AUG-2000; 2000US-00653450.
PR 14-SEP-2000; 2000US-00662191.
PR 19-OCT-2000; 2000US-00693036.
PR 29-NOV-2000; 2000US-00727344.

XX
PA (HYSE-) HYSEQ INC.
XX
PI Tang YT, Liu C, Asundi V, Chen R, Ma Y, Qian XB, Ren F, Wang D;
PI Wang J, Wang Z, Wehrman T, Xu C, Xue AJ, Yang Y, Zhang J, Zhao QA;
PI Zhou P, Goodrich R, Drmanac RT;
XX
DR WPI; 2001-442253/47.
DR N-PSDB; AAI59832.
XX
PT Novel nucleic acids and polypeptides, useful for treating disorders such
PT as central nervous system injuries.
XX
PS Example 2; SEQ ID NO 5607; 10078pp; English.
XX
CC The invention relates to human nucleic acids (AAI57798-AAI61369) and the
CC encoded polypeptides (AAM38642-AAM42213) with nootropic,
CC immunosuppressant and cytostatic activity. The polynucleotides are useful
CC in gene therapy. A composition containing a polypeptide or polynucleotide
CC of the invention may be used to treat diseases of the peripheral nervous
CC system, such as peripheral nervous injuries, peripheral neuropathy and
CC localised neuropathies and central nervous system diseases, such as
CC Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
CC utilisation of the activities such as: Immune system suppression,
CC Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
CC and thrombolytic activity, cancer diagnosis and therapy, drug screening,
CC assays for receptor activity, arthritis and inflammation, leukaemias and
CC C.N.S disorders. Note: The sequence data for this patent did not form
CC part of the printed specification
XX
SQ Sequence 126 AA;

Alignment Scores:

Pred. No.:	2.14e-29	Length:	126
Score:	379.00	Matches:	83
Percent Similarity:	56.00%	Conservative:	1
Best Local Similarity:	55.33%	Mismatches:	0
Query Match:	36.80%	Indels:	66
DB:	4	Gaps:	1

US-10-659-782A-11 (1-579) x AAM40676 (1-126)

```
Qy         85 CCACCTGTCTGCAACCCAGCTGAGGCCATGCCCTCCCCAGGGACCGTCTGCAGCCTCCTG 144
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 ProProValCysAsnProAlaGluAlaMetProSerProGlyThrValCysSerLeuLeu 20

Qy        145 CTCCTCGGCATGCTCTGGCTGGACTTGGCCATGGCAGGCTCCAGCTTCCTGAGCCCTGAA 204
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         21 LeuLeuGlyMetLeuTrpLeuAspLeuAlaMetAlaGlySerSerPheLeuSerProGlu 40

Qy        205 CACCAGAGAGTCCAGGTGAGACCTCCCCACAAAGCCCCACATGTTGTTCCAGCCCTGCCA 264
              |||||||||||||| :::
Db         41 HisGlnArgValGln--Gln---------------------------------------- 46

Qy        265 CTTAGCAACCAGCTCTGTGACCTGGAGCAGCAGCGCCATCTCTGGGCTTCAGTCTTCTCC 324
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         46 ---------------------------------------------------------- 46

Qy        325 CAGAGCACAAAGGACTCTGGGTCTGACCTCACTGTTTCTGGAAGGACATGGGGGCTTAGA 384
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         46 ---------------------------------------------------------- 46

Qy        385 GTCCTAAACAGACTGTTTCCCCCTTCCAGCAGAGAAAGGAGTCGAAGAAGCCACCAGCCA 444
                                                 ||||||||||||||||||||||||||||
Db         47 -------------------------------ArgLysGluSerLysLysProProAlaL 56

Qy        445 AGCTGCAGCCCCGAGCTCTAGCAGGCTGGCTCCGCCCGGAAGATGGAGGTCAAGCAGAAG 504
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         56 ysLeuGlnProArgAlaLeuAlaGlyTrpLeuArgProGluAspGlyGlyGlnAlaGluG 76

Qy        505 GGGCAGAGGATGAACTGGAAGTCCGG 530
              |||||||||||||||||||||||||
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Db 76 lyAlaGluAspGluLeuGluValArg 84

RESULT 2
AAE33410
ID AAE33410 standard; protein; 91 AA.
XX
AC AAE33410;
XX
DT 02-APR-2003 (first entry)
XX
DE Human exon 3-deleted ghrelin protein.
XX
KW Ghrelin; preproghrelin; GHS-R 1b; benign prostatic hyperplasia; therapy;
KW breast; cervical; uterine; choriocarcinoma; prostate; ovary; cytostatic;
KW cancer; human.
XX
OS Homo sapiens.
XX
PN WO200290387-A1.
XX
PD 14-NOV-2002.
XX
PF 10-MAY-2002; 2002WO-AU000582.
XX
PR 10-MAY-2001; 2001AU-00004919.
PR 17-DEC-2001; 2001AU-00009567.
XX
PA (UYQU-) UNIV QUEENSLAND TECHNOLOGY.
XX
PI Chopin LK, Jeffery PL, Herington AC;
XX
DR WPI; 2003-111957/10.
DR N-PSDB; AAD50726.
XX
PT Identifying a cancer cell or tissue for treating prostate, ovarian,
PT breast cancer, or benign prostatic hyperplasia, by detecting the
PT expression of a ghrelin, an exon-3 deleted preproghrelin and/or a GHS-R
PT 1b proteins or nucleic acids.
XX
PS Claim 14; Page 34; 50pp; English.
XX
CC The invention relates to a method for identifying a cancer cell or tissue
CC of the reproductive system by detecting expression of a ghrelin, an exon-
CC 3 deleted preproghrelin and/or a GHS-R 1b proteins or nucleic acids. The
CC antibodies, exon 3-deleted form of preproghrelin and antagonists are
CC useful for treating cancer of the reproductive system such as prostate,
CC ovarian, breast, cervical or uterine cancer, choriocarcinoma or benign
CC prostatic hyperplasia. The present sequence is human exon 3-deleted
CC ghrelin protein
XX
SQ Sequence 91 AA;

Alignment Scores:

Pred. No.:	4.59e-24	Length:	91
Score:	326.00	Matches:	74
Percent Similarity:	53.19%	Conservative:	1
Best Local Similarity:	52.48%	Mismatches:	0
Query Match:	31.65%	Indels:	66
DB:	6	Gaps:	1

US-10-659-782A-11 (1-579) x AAE33410 (1-91)

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Qy        112 ATGCCCTCCCCAGGGACCGTCTGCAGCCTCCTGCTCCTCGGCATGCTCTGGCTGGACTTG 171
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MetProSerProGlyThrValCysSerLeuLeuLeuLeuGlyMetLeuTrpLeuAspLeu 20

Qy        172 GCCATGGCAGGCTCCAGCTTCCTGAGCCCTGAACACCAGAGAGTCCAGGTGAGACCTCCC 231
              |||||||||||||||||||||||||||||||||||||||||||||||||||  :::
Db         21 AlaMetAlaGlySerSerPheLeuSerProGluHisGlnArgValGln--Gln------- 37

Qy        232 CACAAAGCCCCACATGTTGTTCCAGCCCTGCCACTTAGCAACCAGCTCTGTGACCTGGAG 291
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         37 ---------------------------------------------------------- 37
```

```
Qy        292 CAGCAGCGCCATCTCTGGGCTTCAGTCTTCTCCCAGAGCACAAAGGACTCTGGGTCTGAC 351

Db         37 ------------------------------------------------------------ 37

Qy        352 CTCACTGTTTCTGGAAGGACATGGGGGCTTAGAGTCCTAAACAGACTGTTTCCCCCTTCC 411

Db         37 ------------------------------------------------------------ 37

Qy        412 AGCAGAGAAAGGAGTCGAAGAAGCCACCAGCCAAGCTGCAGCCCCGAGCTCTAGCAGGCT 471
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         38 -----ArgLysGluSerLysLysProProAlaLysLeuGlnProArgAlaLeuAlaGlyT 56

Qy        472 GGCTCCGCCCGGAAGATGGAGGTCAAGCAGAAGGGGCAGAGGATGAACTGGAAGTCCGG 530
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         56 rpLeuArgProGluAspGlyGlyGlnAlaGluGlyAlaGluAspGluLeuGluValArg 75
```

RESULT 3
AAW87991
ID AAW87991 standard; protein; 117 AA.
XX
AC AAW87991;
XX
DT 07-APR-1999 (first entry)
XX
DE Protein designated zsig33.
XX
KW Zsig33; gastric motility; gastrointestinal inflammation; reflux disease;
KW nutrient absorption regulation; obesity; metabolic disorder.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1. .23
FT /note= "signal peptide"
FT Protein 24. .117
FT /note= "mature protein"
XX
PN WO9842840-A1.
XX
PD 01-OCT-1998.
XX
PF 23-MAR-1998; 98WO-US005620.
XX
PR 24-MAR-1997; 97US-0041102P.
PR 24-MAR-1997; 97US-00822897.
XX
PA (ZYMO) ZYMOGENETICS INC.
XX
PI Sheppard PO, Deisher TA;
XX
DR WPI; 1999-070071/06.
DR N-PSDB; AAX04550.
XX
PT Human polypeptide having homology to motilin, zsig33 - useful e.g. to
PT treat gastrointestinal motility disorders, obesity etc. and to identify
PT antagonists to treat gastrointestinal hypermotility.
XX
PS Claim 13; Page 55-56; 69pp; English.
XX
CC The present sequence represents a protein designated Zsig33. The nucleic
CC acids are strongly expressed in stomach tissue. The polypeptide (or
CC allelic variants/orthologs) can be used to stimulate gastric motility,
CC measured as increased transit time or gastric emptying of an ingested
CC substance in mammals. The products are used to treat disorders associated
CC with gastrointestinal cell contractility, secretion of digestive
CC enzymes/acids, gastrointestinal motility, recruitment of digestive
CC enzymes, gastrointestinal inflammation, reflux disease and nutrient
CC absorption regulation. Zsig33 polypeptides may also be important
CC neurologically, since the family of gut-brain peptides to which the
CC homologous protein motilin belongs has been associated with neurological
CC and CNS functions. They may therefore be used e.g. to regulate satiety or
CC treat obesity and other metabolic disorders where neurological feedback
CC modulates nutritional absorption. They are useful to identify zsig33
CC agonists, antagonists and ligands and to produce antibodies
XX
SQ Sequence 117 AA;

Alignment Scores:

Pred. No.:	4.93e-24	Length:	117
Score:	326.00	Matches:	74
Percent Similarity:	53.19%	Conservative:	1
Best Local Similarity:	52.48%	Mismatches:	0
Query Match:	31.65%	Indels:	66
DB:	2	Gaps:	1

US-10-659-782A-11 (1-579) x AAW87991 (1-117)

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Qy        112 ATGCCCTCCCCAGGGACCGTCTGCAGCCTCCTGCTCCTCGGCATGCTCTGGCTGGACTTG 171
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MetProSerProGlyThrValCysSerLeuLeuLeuLeuGlyMetLeuTrpLeuAspLeu 20

Qy        172 GCCATGGCAGGCTCCAGCTTCCTGAGCCCTGAACACCAGAGAGTCCAGGTGAGACCTCCC 231
              ||||||||||||||||||||||||||||||||||||||||||||||  :::
Db         21 AlaMetAlaGlySerSerPheLeuSerProGluHisGlnArgValGln--Gln------- 37

Qy        232 CACAAAGCCCCACATGTTGTTCCAGCCCTGCCACTTAGCAACCAGCTCTGTGACCTGGAG 291

Db         37 ------------------------------------------------------------ 37

Qy        292 CAGCAGCGCCATCTCTGGGCTTCAGTCTTCTCCCAGAGCACAAAGGACTCTGGGTCTGAC 351

Db         37 ------------------------------------------------------------ 37

Qy        352 CTCACTGTTTCTGGAAGGACATGGGGGCTTAGAGTCCTAAACAGACTGTTTCCCCCTTCC 411

Db         37 ------------------------------------------------------------ 37

Qy        412 AGCAGAGAAAGGAGTCGAAGAAGCCACCAGCCAAGCTGCAGCCCCGAGCTCTAGCAGGCT 471
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         38 -----ArgLysGluSerLysLysProProAlaLysLeuGlnProArgAlaLeuAlaGlyT 56

Qy        472 GGCTCCGCCCGGAAGATGGAGGTCAAGCAGAAGGGGCAGAGGATGAACTGGAAGTCCGG 530
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         56 rpLeuArgProGluAspGlyGlyGlnAlaGluGlyAlaGluAspGluLeuGluValArg 75
```

RESULT 4
AAY87236
ID AAY87236 standard; protein; 117 AA.
XX
AC AAY87236;
XX
DT 11-MAY-2000 (first entry)
XX
DE Human signal peptide containing protein HSPP-13 SEQ ID NO:13.
XX
KW Human; signal peptide-containing protein; HSPP; diagnosis; cancer;
KW inflammation; cardiovascular disease; anticancer; anti-inflammatory;
KW antimicrobial; nootropic; neuroprotective; cardiovascular; hepatotropic;
KW antiasthmatic; gene therapy; cell proliferation; neurological disorder;
KW reproductive disorder; developmental disorder; arteriosclerosis;
KW cirrhosis; psoriasis; acquired immune deficiency syndrome; anaemia;
KW asthma; Crohn's disease; infection; Alzheimer's disease; schizophrenia;
KW Parkinson's disease; Huntington's diseases; ovulatory defect;
KW muscular dystrophy.
XX
OS Homo sapiens.
XX
PN WO200000610-A2.
XX
PD 06-JAN-2000.
XX
PF 25-JUN-1999; 99WO-US014484.
XX
PR 26-JUN-1998; 98US-0090762P.
PR 31-JUL-1998; 98US-0094983P.

```
PR   01-OCT-1998;   98US-0102686P.
PR   11-DEC-1998;   98US-0112129P.
XX
PA   (INCY-) INCYTE PHARM INC.
XX
PI   Lal P,  Tang YT,  Gorgone GA,  Corley NC,  Guegler KJ,  Baughn MR;
PI   Akerblom IE,  Au-Young J,  Yue H,  Patterson C,  Reddy R,  Hillman JL;
PI   Bandman O;
XX
DR   WPI; 2000-160673/14.
DR   N-PSDB; AAZ98121.
XX
PT   New human signal peptide-containing proteins useful in treatment,
PT   prevention and diagnosis of e.g. cancer, inflammation and cardiovascular
PT   disease.
XX
PS   Claim 1; Page 168-169; 327pp; English.
XX
CC   AAZ98109 to AAZ98242 encode AAY87224 to AAY87357 which represent the
CC   human signal peptide-containing proteins HSPP-1 to HSPP-134. HSPPs have
CC   anticancer, anti-inflammatory, antimicrobial, nootropic, hepatotropic,
CC   neuroprotective, cardiovascular and antiasthmatic activities, and can be
CC   used in gene therapy. HSPPs can be used to treat or prevent disorders
CC   associated with decreased activity or function of HSPP. Antagonists of
CC   HSPP are used to treat or prevent disorders associated with increased
CC   activity or function of HSPP. Such diseases include cell proliferation
CC   (including cancer), inflammation, cardiovascular, neurological,
CC   reproductive or developmental disorders, (e.g. arteriosclerosis,
CC   cirrhosis, psoriasis, acquired immune deficiency syndrome, anaemia,
CC   asthma, Crohn's disease, microbial or other infections, congestive or
CC   ischaemic heart disease, Alzheimer's, Parkinson's or Huntington's
CC   diseases, schizophrenia, ovulatory defects, muscular dystrophy). HSPP
CC   nucleic acids can be used for the recombinant production of HSPP, for
CC   detecting HSPP in standard hybridisation and amplification assays (for
CC   diagnosis and monitoring), in gene therapy, as antisense, triplex-forming
CC   or ribozyme therapeutics, for detecting related sequences or genetic
CC   variations, and for chromosomal mapping. HSPP are also used to raise
CC   specific antibodies (Ab) and to screen for agonists and antagonists
CC   (potential therapeutic agents). Ab are used to diagnose, or monitor, HSPP
CC   -related diseases (in usual immunoassays), as therapeutic antagonists, in
CC   competitive drug screens, and for purification of HSPP from natural
CC   sources
XX
SQ   Sequence 117 AA;

Alignment Scores:
Pred. No.:              4.93e-24        Length:         117
Score:                  326.00          Matches:        74
Percent Similarity:     53.19%          Conservative:   1
Best Local Similarity:  52.48%          Mismatches:     0
Query Match:            31.65%          Indels:         66
DB:                     3               Gaps:           1

US-10-659-782A-11 (1-579) x AAY87236 (1-117)

Qy        112 ATGCCCTCCCCAGGGACCGTCTGCAGCCTCCTGCTCCTCGGCATGCTCTGGCTGGACTTG 171
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MetProSerProGlyThrValCysSerLeuLeuLeuLeuGlyMetLeuTrpLeuAspLeu 20

Qy        172 GCCATGGCAGGCTCCAGCTTCCTGAGCCCTGAACACCAGAGAGTCCAGGTGAGACCTCCC 231
              ||||||||||||||||||||||||||||||||||||||||||||  :::
Db         21 AlaMetAlaGlySerSerPheLeuSerProGluHisGlnArgValGln--Gln------- 37

Qy        232 CACAAAGCCCCACATGTTGTTCCAGCCCTGCCACTTAGCAACCAGCTCTGTGACCTGGAG 291

Db         37 ------------------------------------------------------------ 37

Qy        292 CAGCAGCGCCATCTCTGGGCTTCAGTCTTCTCCCAGAGCACAAAGGACTCTGGGTCTGAC 351

Db         37 ------------------------------------------------------------ 37

Qy        352 CTCACTGTTTCTGGAAGGACATGGGGGCTTAGAGTCCTAAACAGACTGTTTCCCCCTTCC 411

Db         37 ------------------------------------------------------------ 37

Qy        412 AGCAGAGAAAGGAGTCGAAGAAGCCACCAGCCAAGCTGCAGCCCCGAGCTCTAGCAGGCT 471
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         38 -----ArgLysGluSerLysLysProProAlaLysLeuGlnProArgAlaLeuAlaGlyT 56

Qy        472 GGCTCCGCCCGGAAGATGGAGGTCAAGCAGAAGGGGCAGAGGATGAACTGGAAGTCCGG 530
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         56 rpLeuArgProGluAspGlyGlyGlnAlaGluGlyAlaGluAspGluLeuGluValArg 75

RESULT 5
AAB20101
ID   AAB20101 standard; protein; 117 AA.
XX
AC   AAB20101;
XX
DT   23-APR-2001  (first entry)
XX
DE   Zsig33 protein.
XX
KW   SGIP; zsig33; anorectic; antidiabetic; somatotropin; somatomedin-C;
KW   nutritional absorption modulator; growth hormone secretagogue; therapy;
KW   human.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .23
FT                   /label= Signal_peptide
FT   Protein         24. .117
FT                   /label= Mature_protein
FT   Peptide         24. .34
FT                   /label= SGIP_peptide
FT                   /note= "this peptide is claimed in Claim 1"
XX
PN   WO200100830-A1.
XX
PD   04-JAN-2001.
XX
PF   30-JUN-2000; 2000WO-US018306.
XX
PR   30-JUN-1999;   99US-00345157.
XX
PA   (ZYMO ) ZYMOGENETICS INC.
XX
PI   Sheppard PO,  Jaspers SR,  Deisher TA,  Bishop PD;
XX
DR   WPI; 2001-123010/13.
DR   N-PSDB; AAF30033.
XX
PT   Novel variants of SGIP peptides for modulating contractility in duodenum
PT   or jejunum tissue, pancreatic secretion of hormones and digestive
PT   enzymes, inducing growth hormone secretion or modulating gastric
PT   emptying.
XX
PS   Disclosure; 54; 61pp; English.
XX
CC   The present sequence is that of zsig33, a secreted protein with homology
CC   to motilin (see AAB20102). Zsig33 is expressed at high levels in the
CC   stomach, and at lower levels in the small intestine and pancreas. A novel
CC   peptide fragment of zsig33, termed SGIP (see AAB20100), is claimed. SGIP
CC   is a ligand for growth hormone secretagogue receptor, and is therefore
CC   useful for modulating secretion of growth hormone and insulin like growth
CC   factor 1. SGIP, and variant SGIP peptides, are used in claimed methods
CC   for stimulating contractability in duodenum or jejunum tissue, modulating
CC   pancreatic secretion of hormones and digestive enzymes, inducing growth
CC   hormone secretion, and modulating gastric emptying
XX
SQ   Sequence 117 AA;

Alignment Scores:
Pred. No.:              4.93e-24        Length:         117
Score:                  326.00          Matches:        74
```

```
Percent Similarity:     53.19%          Conservative:  1
Best Local Similarity:  52.48%          Mismatches:    0
Query Match:            31.65%          Indels:        66
DB:                     4               Gaps:          1

US-10-659-782A-11 (1-579) x AAB20101 (1-117)

Qy        112 ATGCCCTCCCCAGGGACCGTCTGCAGCCTCCTGCTCCTCGGCATGCTCTGGCTGGACTTG 171
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MetProSerProGlyThrValCysSerLeuLeuLeuLeuGlyMetLeuTrpLeuAspLeu 20

Qy        172 GCCATGGCAGGCTCCAGCTTCCTGAGCCCTGAACACCAGAGAGTCCAGGTGAGACCTCCC 231
              |||||||||||||||||||||||||||||||||||||||||||||||||  :::
Db         21 AlaMetAlaGlySerSerPheLeuSerProGluHisGlnArgValGln--Gln------- 37

Qy        232 CACAAAGCCCCACATGTTGTTCCAGCCCTGCCACTTAGCAACCAGCTCTGTGACCTGGAG 291
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         37 ------------------------------------------------------------ 37

Qy        292 CAGCAGCGCCATCTCTGGGCTTCAGTCTTCTCCCAGAGCACAAAGGACTCTGGGTCTGAC 351
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         37 ------------------------------------------------------------ 37

Qy        352 CTCACTGTTTCTGGAAGGACATGGGGGCTTAGAGTCCTAAACAGACTGTTTCCCCCTTCC 411
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         37 ------------------------------------------------------------ 37

Qy        412 AGCAGAGAAAGGAGTCGAAGAAGCCACCAGCCAAGCTGCAGCCCCGAGCTCTAGCAGGCT 471
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         38 -----ArgLysGluSerLysLysProProAlaLysLeuGlnProArgAlaLeuAlaGlyT 56

Qy        472 GGCTCCGCCCGGAAGATGGAGGTCAAGCAGAAGGGGCAGAGGATGAACTGGAAGTCCGG 530
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         56 rpLeuArgProGluAspGlyGlyGlnAlaGluGlyAlaGluAspGluLeuGluValArg 75
```

RESULT 6
AAB62649
ID AAB62649 standard; protein; 117 AA.
XX
AC AAB62649;
XX
DT 23-JUL-2001 (first entry)
XX
DE Human zsig33 polypeptide.
XX
KW zsig33; signal transduction; hormone; enzyme; neural development;
KW gastric contractility; nutrient uptake; digestive; pancreatic; human;
KW insulin-like growth factor-I; growth hormone; bone; gastrointestinal;
KW glucose; osteopathic; anorectic; vulnerary; immunomodulator; GHS-R;
KW G-protein coupled receptor.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 24. .37
FT /note= "specifically claimed fragment that binds to the
FT GHS-R"
XX
PN WO200138355-A2.
XX
PD 31-MAY-2001.
XX
PF 22-NOV-2000; 2000WO-US032074.
XX
PR 22-NOV-1999; 99US-0166765P.
XX
PA (ZYMO) ZYMOGENETICS INC.
XX
PI Sheppard PO, Jaspers SR, Deisher TA, Bishop PD;
XX
DR WPI; 2001-355879/37.
DR N-PSDB; AAF83678.
XX
PT Forming reversible peptide receptor complex for purifying cell and
PT peptides, stimulating signal transduction and modulating hormone
PT secretion, involves contacting a receptor with zsig33 polypeptide.
XX
PS Claim 1; Page 93-94; 111pp; English.
XX
CC The invention relates to a method of forming a reversible peptide-
CC receptor complex that involves providing an immobilized receptor, and
CC contacting the receptor with a zsig33 peptide (comprising residues 24-37
CC of AAB62649), where the receptor binds to the zsig33 peptide. The method
CC is useful for purifying cells, purifying a peptide, stimulating signal
CC transduction in a cell expressing a receptor. It is also useful for
CC modulating secretion of hormones, neural development and/or utilization,
CC gastric contractility, nutrient uptake, secretion of digestive and
CC pancreatic enzymes and hormones, secretion of insulin-like growth factor
CC -I, secretion of non-zsig33 proteins. It is useful for modulating growth
CC hormone secretion in a mammal having a disease associated with abnormal
CC levels of growth hormone, such as osteoporosis, bone repair, bone
CC remodeling, low osteoblast levels, cartilage repair and remodeling,
CC skeletal dysplasia, immune suppression, obesity, growth retardation,
CC protein catabolic responses after surgery, cachexia, protein loss,
CC dwarfism, wound healing and ovulation induction, treating a mammal having
CC a metabolic disorder requiring neurological feedback, such as satiety
CC regulation, glucose absorption and metabolism and neuropathy-associated
CC gastrointestinal disorders, and stimulating glucose-induced insulin
CC release in a mammal. The present sequence represents the human zsig33
CC polypeptide, a peptide ligand for the G-protein coupled receptor, GHS-R
XX
SQ Sequence 117 AA;

```
Alignment Scores:
Pred. No.:              4.93e-24        Length:        117
Score:                  326.00          Matches:       74
Percent Similarity:     53.19%          Conservative:  1
Best Local Similarity:  52.48%          Mismatches:    0
Query Match:            31.65%          Indels:        66
DB:                     4               Gaps:          1

US-10-659-782A-11 (1-579) x AAB62649 (1-117)

Qy        112 ATGCCCTCCCCAGGGACCGTCTGCAGCCTCCTGCTCCTCGGCATGCTCTGGCTGGACTTG 171
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MetProSerProGlyThrValCysSerLeuLeuLeuLeuGlyMetLeuTrpLeuAspLeu 20

Qy        172 GCCATGGCAGGCTCCAGCTTCCTGAGCCCTGAACACCAGAGAGTCCAGGTGAGACCTCCC 231
              |||||||||||||||||||||||||||||||||||||||||||||||||  :::
Db         21 AlaMetAlaGlySerSerPheLeuSerProGluHisGlnArgValGln--Gln------- 37

Qy        232 CACAAAGCCCCACATGTTGTTCCAGCCCTGCCACTTAGCAACCAGCTCTGTGACCTGGAG 291
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         37 ------------------------------------------------------------ 37

Qy        292 CAGCAGCGCCATCTCTGGGCTTCAGTCTTCTCCCAGAGCACAAAGGACTCTGGGTCTGAC 351
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         37 ------------------------------------------------------------ 37

Qy        352 CTCACTGTTTCTGGAAGGACATGGGGGCTTAGAGTCCTAAACAGACTGTTTCCCCCTTCC 411
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         37 ------------------------------------------------------------ 37

Qy        412 AGCAGAGAAAGGAGTCGAAGAAGCCACCAGCCAAGCTGCAGCCCCGAGCTCTAGCAGGCT 471
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         38 -----ArgLysGluSerLysLysProProAlaLysLeuGlnProArgAlaLeuAlaGlyT 56

Qy        472 GGCTCCGCCCGGAAGATGGAGGTCAAGCAGAAGGGGCAGAGGATGAACTGGAAGTCCGG 530
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         56 rpLeuArgProGluAspGlyGlyGlnAlaGluGlyAlaGluAspGluLeuGluValArg 75
```

RESULT 7
AAM38890
ID AAM38890 standard; protein; 117 AA.
XX
AC AAM38890;

XX
DT 22-OCT-2001 (first entry)
XX
DE Human polypeptide SEQ ID NO 2035.
XX
KW Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
KW peripheral nervous system; neuropathy; central nervous system; CNS;
KW Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
KW amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
KW chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
KW leukaemia.
XX
OS Homo sapiens.
XX
PN WO200153312-A1.
XX
PD 26-JUL-2001.
XX
PF 26-DEC-2000; 2000WO-US034263.
XX
PR 23-DEC-1999; 99US-00471275.
PR 21-JAN-2000; 2000US-00488725.
PR 25-APR-2000; 2000US-00552317.
PR 20-JUN-2000; 2000US-00598042.
PR 19-JUL-2000; 2000US-00620312.
PR 03-AUG-2000; 2000US-00653450.
PR 14-SEP-2000; 2000US-00662191.
PR 19-OCT-2000; 2000US-00693036.
PR 29-NOV-2000; 2000US-00727344.
XX
PA (HYSE-) HYSEQ INC.
XX
PI Tang YT, Liu C, Asundi V, Chen R, Ma Y, Qian XB, Ren F, Wang D;
PI Wang J, Wang Z, Wehrman T, Xu C, Xue AJ, Yang Y, Zhang J, Zhao QA;
PI Zhou P, Goodrich R, Drmanac RT;
XX
DR WPI; 2001-442253/47.
DR N-PSDB; AAI58046.
XX
PT Novel nucleic acids and polypeptides, useful for treating disorders such
PT as central nervous system injuries.
XX
PS Example 3; SEQ ID NO 2035; 10078pp; English.
XX
CC The invention relates to human nucleic acids (AAI57798-AAI61369) and the
CC encoded polypeptides (AAM38642-AAM42213) with nootropic,
CC immunosuppressant and cytostatic activity. The polynucleotides are useful
CC in gene therapy. A composition containing a polypeptide or polynucleotide
CC of the invention may be used to treat diseases of the peripheral nervous
CC system, such as peripheral nervous injuries, peripheral neuropathy and
CC localised neuropathies and central nervous system diseases, such as
CC Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic
CC lateral sclerosis, and Shy-Drager Syndrome. Other uses include the
CC utilisation of the activities such as: Immune system suppression,
CC Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic
CC and thrombolytic activity, cancer diagnosis and therapy, drug screening,
CC assays for receptor activity, arthritis and inflammation, leukaemias and
CC C.N.S disorders. Note: The sequence data for this patent did not form
CC part of the printed specification
XX
SQ Sequence 117 AA;

Alignment Scores:

Pred. No.:	4.93e-24	Length:	117
Score:	326.00	Matches:	74
Percent Similarity:	53.19%	Conservative:	1
Best Local Similarity:	52.48%	Mismatches:	0
Query Match:	31.65%	Indels:	66
DB:	4	Gaps:	1

US-10-659-782A-11 (1-579) x AAM38890 (1-117)

```
Qy        112 ATGCCCTCCCCAGGGACCGTCTGCAGCCTCCTGCTCCTCGGCATGCTCTGGCTGGACTTG 171
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MetProSerProGlyThrValCysSerLeuLeuLeuLeuGlyMetLeuTrpLeuAspLeu 20

Qy        172 GCCATGGCAGGCTCCAGCTTCCTGAGCCCTGAACACCAGAGAGTCCAGGTGAGACCTCCC 231
              ||||||||||||||||||||||||||||||||||||||||||||||||||||  :::
Db         21 AlaMetAlaGlySerSerPheLeuSerProGluHisGlnArgValGln--Gln------- 37

Qy        232 CACAAAGCCCCACATGTTGTTCCAGCCCTGCCACTTAGCAACCAGCTCTGTGACCTGGAG 291

Db         37 ------------------------------------------------------------ 37

Qy        292 CAGCAGCGCCATCTCTGGGCTTCAGTCTTCTCCCAGAGCACAAAGGACTCTGGGTCTGAC 351

Db         37 ------------------------------------------------------------ 37

Qy        352 CTCACTGTTTCTGGAAGGACATGGGGGCTTAGAGTCCTAAACAGACTGTTTCCCCCTTCC 411

Db         37 ------------------------------------------------------------ 37

Qy        412 AGCAGAGAAAGGAGTCGAAGAAGCCACCAGCCAAGCTGCAGCCCCGAGCTCTAGCAGGCT 471
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         38 -----ArgLysGluSerLysLysProProAlaLysLeuGlnProArgAlaLeuAlaGlyT 56

Qy        472 GGCTCCGCCCGGAAGATGGAGGTCAAGCAGAAGGGGCAGAGGATGAACTGGAAGTCCGG 530
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         56 rpLeuArgProGluAspGlyGlyGlnAlaGluGlyAlaGluAspGluLeuGluValArg 75
```

RESULT 8
AAB60511
ID AAB60511 standard; protein; 117 AA.
XX
AC AAB60511;
XX
DT 24-APR-2001 (first entry)
XX
DE Human ghrelin preproprotein, SEQ ID NO:5.
XX
KW Growth hormone secretagogue; GHS; ghrelin; precursor; preproprotein;
KW calcium concentration elevation; infant growth disorder;
KW growth hormone deficiency.
XX
OS Homo sapiens.
XX
PN WO200107475-A1.
XX
PD 01-FEB-2001.
XX
PF 24-JUL-2000; 2000WO-JP004907.
XX
PR 23-JUL-1999; 99JP-00210002.
PR 29-NOV-1999; 99JP-00338841.
PR 26-APR-2000; 2000JP-00126623.
XX
PA (KANG/) KANGAWA K.
XX
PI Kangawa K, Kojima M, Hosoda H, Matsuo H, Minamitake Y;
XX
DR WPI; 2001-159704/16.
DR N-PSDB; AAF59645.
XX
PT New peptide compounds which induce growth hormone secretion and elevate
PT cell calcium concentrations, useful in treatment and diagnosis of infant
PT growth disorders.
XX
PS Claim 3; Page 182; 210pp; Japanese.
XX
CC The invention relates to a novel peptide compound or its salt which
CC induces the secretion of growth hormone and/or elevates calcium ion
CC concentration in cells. The peptides are ghrelin homologues and are
CC characterised in that at least one amino acid has been substituted by a
CC modified amino acid and/or a non-amino acid compound. The invention also
CC encompasses the unmodified peptides; the DNA encoding the peptides;
CC vectors and host cells comprising such DNA; a method of producing the

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CC   peptides comprising recombinant production, optionally followed by
CC   chemical modification; an antibody specific for a peptide of the
CC   invention; and an assay and kit for detecting the peptides. The peptides
CC   of the invention are useful for treating and/or diagnosing diseases
CC   caused by a deficiency in growth hormone expression or activity. In
CC   particular, they are useful for promoting infant growth due to growth
CC   hormone deficiency. The compounds of the invention are safe with no
CC   accompanying side effects. The present sequence represents a ghrelin-type
CC   growth hormone secretagogue (GHS) precursor protein of the invention
XX
SQ   Sequence 117 AA;

Alignment Scores:
Pred. No.:              4.93e-24        Length:         117
Score:                  326.00          Matches:        74
Percent Similarity:     53.19%          Conservative:   1
Best Local Similarity:  52.48%          Mismatches:     0
Query Match:            31.65%          Indels:         66
DB:                     4               Gaps:           1

US-10-659-782A-11 (1-579) x AAB60511 (1-117)

Qy        112 ATGCCCTCCCCAGGGACCGTCTGCAGCCTCCTGCTCCTCGGCATGCTCTGGCTGGACTTG 171
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MetProSerProGlyThrValCysSerLeuLeuLeuLeuGlyMetLeuTrpLeuAspLeu 20

Qy        172 GCCATGGCAGGCTCCAGCTTCCTGAGCCCTGAACACCAGAGAGTCCAGGTGAGACCTCCC 231
              |||||||||||||||||||||||||||||||||||||||||||||||||  :::
Db         21 AlaMetAlaGlySerSerPheLeuSerProGluHisGlnArgValGln--Gln------- 37

Qy        232 CACAAAGCCCCACATGTTGTTCCAGCCCTGCCACTTAGCAACCAGCTCTGTGACCTGGAG 291

Db         37 ------------------------------------------------------------ 37

Qy        292 CAGCAGCGCCATCTCTGGGCTTCAGTCTTCTCCCAGAGCACAAAGGACTCTGGGTCTGAC 351

Db         37 ------------------------------------------------------------ 37

Qy        352 CTCACTGTTTCTGGAAGGACATGGGGGCTTAGAGTCCTAAACAGACTGTTTCCCCCTTCC 411

Db         37 ------------------------------------------------------------ 37

Qy        412 AGCAGAGAAAGGAGTCGAAGAAGCCACCAGCCAAGCTGCAGCCCCGAGCTCTAGCAGGCT 471
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         38 -----ArgLysGluSerLysLysProProAlaLysLeuGlnProArgAlaLeuAlaGlyT 56

Qy        472 GGCTCCGCCCGGAAGATGGAGGTCAAGCAGAAGGGGCAGAGGATGAACTGGAAGTCCGG 530
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         56 rpLeuArgProGluAspGlyGlyGlnAlaGluGlyAlaGluAspGluLeuGluValArg 75

RESULT 9
ABB78319
ID   ABB78319 standard; protein; 117 AA.
XX
AC   ABB78319;
XX
DT   05-DEC-2002  (first entry)
XX
DE   Amino acid sequence of a human zsig33.
XX
KW   Short gastrointestinal peptide; SGIP; zsig33; motilin.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .23
FT                   /note= "signal peptide"
FT   Protein         24. .119
FT                   /note= "mature protein"
XX
PN   US6420521-B1.
XX
PD   16-JUL-2002.
XX
PF   30-JUN-2000; 2000US-00608810.
XX
PR   30-JUN-1999;   99US-0141592P.
XX
PA   (ZYMO ) ZYMOGENETICS INC.
XX
PI   Sheppard PO,  Jaspers SR,  Deisher TA,  Bishop PD;
XX
DR   WPI; 2002-634794/68.
DR   N-PSDB; ABV72214.
XX
PT   New Short Gastrointestinal Peptide, which has homology to motilin, useful
PT   for preventing, diagnosing and treating gastrointestinal disorders.
XX
PS   Disclosure; Col 39-40; 23pp; English.
XX
CC   The present sequence represents human zsig33. The specification describes
CC   a short gastrointestinal peptide (SGIP), which is derived from zsig33.
CC   SGIP has homology to motilin. The SGIP peptide may be used in the
CC   prevention, diagnosis and treatment of diseases associated with
CC   inappropriate SGIP expression. For example, SGIP may be used to treat
CC   disorders associated with decreased expression by rectifying mutations or
CC   deletions in a patient's genome that affect the activity of SGIP by
CC   expressing inactive proteins or to supplement the patients own production
CC   of SGIP. SGIP may also be used as an antigen in the production of
CC   antibodies against SGIP and in assays to identify modulators of SGIP
CC   expression and activity. The anti-SGIP antibodies, agonists and
CC   antagonists may also be used to regulate expression and activity. The
CC   anti-SGIP antibodies may also be used as diagnostic agents for detecting
CC   the presence of SGIP in samples
XX
SQ   Sequence 117 AA;

Alignment Scores:
Pred. No.:              4.93e-24        Length:         117
Score:                  326.00          Matches:        74
Percent Similarity:     53.19%          Conservative:   1
Best Local Similarity:  52.48%          Mismatches:     0
Query Match:            31.65%          Indels:         66
DB:                     5               Gaps:           1

US-10-659-782A-11 (1-579) x ABB78319 (1-117)

Qy        112 ATGCCCTCCCCAGGGACCGTCTGCAGCCTCCTGCTCCTCGGCATGCTCTGGCTGGACTTG 171
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MetProSerProGlyThrValCysSerLeuLeuLeuLeuGlyMetLeuTrpLeuAspLeu 20

Qy        172 GCCATGGCAGGCTCCAGCTTCCTGAGCCCTGAACACCAGAGAGTCCAGGTGAGACCTCCC 231
              |||||||||||||||||||||||||||||||||||||||||||||||||  :::
Db         21 AlaMetAlaGlySerSerPheLeuSerProGluHisGlnArgValGln--Gln------- 37

Qy        232 CACAAAGCCCCACATGTTGTTCCAGCCCTGCCACTTAGCAACCAGCTCTGTGACCTGGAG 291

Db         37 ------------------------------------------------------------ 37

Qy        292 CAGCAGCGCCATCTCTGGGCTTCAGTCTTCTCCCAGAGCACAAAGGACTCTGGGTCTGAC 351

Db         37 ------------------------------------------------------------ 37

Qy        352 CTCACTGTTTCTGGAAGGACATGGGGGCTTAGAGTCCTAAACAGACTGTTTCCCCCTTCC 411

Db         37 ------------------------------------------------------------ 37

Qy        412 AGCAGAGAAAGGAGTCGAAGAAGCCACCAGCCAAGCTGCAGCCCCGAGCTCTAGCAGGCT 471
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         38 -----ArgLysGluSerLysLysProProAlaLysLeuGlnProArgAlaLeuAlaGlyT 56

Qy        472 GGCTCCGCCCGGAAGATGGAGGTCAAGCAGAAGGGGCAGAGGATGAACTGGAAGTCCGG 530
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         56 rpLeuArgProGluAspGlyGlyGlnAlaGluGlyAlaGluAspGluLeuGluValArg 75

RESULT 10
```

```
AAE23838
ID   AAE23838 standard; protein; 117 AA.
XX
AC   AAE23838;
XX
DT   10-SEP-2002  (first entry)
XX
DE   Human zsig33 protein.
XX
KW   Human; zsig33-like peptide; gastric contractility; nutrient uptake;
KW   growth hormone; digestive enzyme; restorative therapy; gene therapy;
KW   protein therapy; gastrointestinal; endocrine; anabolic.
XX
OS   Homo sapiens.
XX
PN   US2002055156-A1.
XX
PD   09-MAY-2002.
XX
PF   10-MAY-2001; 2001US-00853253.
XX
PR   11-MAY-2000; 2000US-0203300P.
XX
PA   (JASP/) JASPERS S R.
PA   (SHEP/) SHEPPARD P O.
PA   (DEIS/) DEISHER T A.
PA   (BISH/) BISHOP P D.
XX
PI   Jaspers SR,  Sheppard PO,  Deisher TA,  Bishop PD;
XX
DR   WPI; 2002-443750/47.
DR   N-PSDB; AAD38238.
XX
PT   ZSIG33-Like peptides and polynucleotides, useful for modulating gastric
PT   contractility, nutrient uptake, growth hormones and/or secretion of
PT   digestive/pancreatic enzymes and hormones.
XX
PS   Disclosure; Page 27; 34pp; English.
XX
CC   The invention relates to zsig33-like peptides and their corresponding
CC   nucleic acids and methods for modulating gastric contractility, nutrient
CC   uptake, growth hormones, secretion of digestive enzymes and hormones. The
CC   sequences of the invention are used in the prevention, diagnosis and
CC   treatment of diseases associated with inappropriate ZSIG33 expression.
CC   The nucleic acids of the invention and their complements are used as DNA
CC   probes in diagnostic assays to detect and quantitate the presence of
CC   similar nucleic acids in samples, and therefore which patients may be in
CC   need of restorative therapy. The ZSIG33 peptides are used as antigens in
CC   the production of antibodies against ZSIG33 and in assays to identify
CC   modulators of ZSIG33 expression and activity. The anti-ZSIG33 antibodies
CC   and antagonists are used to down regulate expression and activity. The
CC   anti-ZSIG33 antibodies are also used as diagnostic agents for detecting
CC   the presence of ZSIG33 in samples (e.g. by enzyme linked immunosorbent
CC   assay (ELISA)). The peptides and nucleic acids of the invention are used
CC   to modulate gastric contractility, nutrient uptake, growth hormones, the
CC   secretion of digestive enzymes and hormones, and/or secretion of enzymes
CC   and/or hormones in the pancreas. zsig33-like DNA is used in gene therapy
CC   and zsig33-like peptide is used in protein therapy. The present sequence
CC   is human zsig33 protein
XX
SQ   Sequence 117 AA;

Alignment Scores:
Pred. No.:              4.93e-24      Length:        117
Score:                  326.00        Matches:       74
Percent Similarity:     53.19%        Conservative:  1
Best Local Similarity:  52.48%        Mismatches:    0
Query Match:            31.65%        Indels:        66
DB:                     5             Gaps:          1

US-10-659-782A-11 (1-579) x AAE23838 (1-117)

Qy        112 ATGCCCTCCCCAGGGACCGTCTGCAGCCTCCTGCTCCTCGGCATGCTCTGGCTGGACTTG 171
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MetProSerProGlyThrValCysSerLeuLeuLeuLeuGlyMetLeuTrpLeuAspLeu 20

Qy        172 GCCATGGCAGGCTCCAGCTTCCTGAGCCCTGAACACCAGAGAGTCCAGGTGAGACCTCCC 231
              ||||||||||||||||||||||||||||||||||||||||||||||||||   :::
Db         21 AlaMetAlaGlySerSerPheLeuSerProGluHisGlnArgValGln--Gln------- 37

Qy        232 CACAAAGCCCCACATGTTGTTCCAGCCCTGCCACTTAGCAACCAGCTCTGTGACCTGGAG 291

Db         37 ------------------------------------------------------------ 37

Qy        292 CAGCAGCGCCATCTCTGGGCTTCAGTCTTCTCCCAGAGCACAAAGGACTCTGGGTCTGAC 351

Db         37 ------------------------------------------------------------ 37

Qy        352 CTCACTGTTTCTGGAAGGACATGGGGGCTTAGAGTCCTAAACAGACTGTTTCCCCCTTCC 411

Db         37 ------------------------------------------------------------ 37

Qy        412 AGCAGAGAAAGGAGTCGAAGAAGCCACCAGCCAAGCTGCAGCCCCGAGCTCTAGCAGGCT 471
                   |||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         38 -----ArgLysGluSerLysLysProProAlaLysLeuGlnProArgAlaLeuAlaGlyT 56

Qy        472 GGCTCCGCCCGGAAGATGGAGGTCAAGCAGAAGGGGCAGAGGATGAACTGGAAGTCCGG 530
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         56 rpLeuArgProGluAspGlyGlyGlnAlaGluGlyAlaGluAspGluLeuGluValArg 75

RESULT 11
AAE15883
ID   AAE15883 standard; protein; 117 AA.
XX
AC   AAE15883;
XX
DT   26-MAR-2002  (first entry)
XX
DE   Human zsig33 protein.
XX
KW   Human; zsig33-like peptide; ZS33LP; immunity; developmental process;
KW   infection; human immunodeficiency virus; vaccine; antihypoglycaemic;
KW   adsorption enhancer; gastrointestinal disease; growth related disease;
KW   inflammation; gene therapy; growth regulation; blood vessel formation;
KW   HIV; zsig33 protein.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .23
FT                   /label= Signal_peptide
FT   Protein         24. .117
FT                   /note= "Human mature zsig33 protein"
XX
PN   WO200187933-A2.
XX
PD   22-NOV-2001.
XX
PF   10-MAY-2001; 2001WO-US015091.
XX
PR   11-MAY-2000; 2000US-00569271.
XX
PA   (ZYMO ) ZYMOGENETICS INC.
XX
PI   Jaspers SR,  Sheppard PO,  Deisher TA,  Bishop PD;
XX
DR   WPI; 2002-082982/11.
DR   N-PSDB; AAD25759.
XX
PT   New polypeptides, useful for modulating gastric contractility, nutrient
PT   uptake, pancreatic secretion of hormones, digestive enzymes and treating
PT   gastrointestinal and growth related diseases, comprises zsig33-like
PT   peptides.
XX
PS   Disclosure; Page 80-81; 89pp; English.
XX
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CC The invention relates to zsig33-like peptides (ZS33LP) including zsig33-
CC linker, zsig33-beta, zsig33-gamma, zsig33-delta and zsig33-epsilon
CC peptides and nucleic acid molecules encoding such zsig33-like peptides.
CC ZS33LP peptides activate the immune system in boosting immunity to
CC infectious diseases, treating immunocompromised patients such as human
CC immunodeficiency virus (HIV) patients, in improving vaccines and in
CC treatment of bacterial, viral, protozoal and fungal infections. Peptides
CC of the invention are used to identify and isolate receptors involved in
CC growth regulation in the liver, blood vessel formation and other
CC developmental processes. They are useful for evaluating functions of
CC hypothalamus-pituitary-adrenal axis, to modulate growth and/or
CC differentiation of tumour cells, as additives to anti- hypoglycaemic
CC preparations containing glucose and as adsorption enhancers for oral
CC drugs which require fast nutrient action and to stimulate glucose-induced
CC insulin release. They are also useful as research reagents for the
CC expansion, differentiation, growth factor and hormone secretion and/or
CC cell-cell interactions of tissues associated with gastrointestinal
CC system, brain and central nervous system. These molecules are useful for
CC treating dysfunction associated with contractile tissues or to suppress
CC or enhance contractility in vivo and to treat gastrointestinal and growth
CC related diseases. ZS33LP peptides, nucleic acids and/or antibodies are
CC useful for treating disorders associated with gastrointestinal
CC contractility, secretion of digestive enzymes, hormone and acids,
CC secretion of hormones in the pancreas and/or brain, gastrointestinal
CC motility, recruitment of digestive enzymes, inflammation and regulation
CC of nutrient absorption. Sequences of the invention are useful in gene
CC therapy. The present sequence is human zsig33 protein
XX
SQ Sequence 117 AA;

Alignment Scores:

Pred. No.:	4.93e-24	Length:	117
Score:	326.00	Matches:	74
Percent Similarity:	53.19%	Conservative:	1
Best Local Similarity:	52.48%	Mismatches:	0
Query Match:	31.65%	Indels:	66
DB:	5	Gaps:	1

US-10-659-782A-11 (1-579) x AAE15883 (1-117)

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Db         21 AlaMetAlaGlySerSerPheLeuSerProGluHisGlnArgValGln--Gln------- 37

Qy        232 CACAAAGCCCCACATGTTGTTCCAGCCCTGCCACTTAGCAACCAGCTCTGTGACCTGGAG 291

Db         37 ------------------------------------------------------------ 37

Qy        292 CAGCAGCGCCATCTCTGGGCTTCAGTCTTCTCCCAGAGCACAAAGGACTCTGGGTCTGAC 351

Db         37 ------------------------------------------------------------ 37

Qy        352 CTCACTGTTTCTGGAAGGACATGGGGGCTTAGAGTCCTAAACAGACTGTTTCCCCCTTCC 411

Db         37 ------------------------------------------------------------ 37

Qy        412 AGCAGAGAAAGGAGTCGAAGAAGCCACCAGCCAAGCTGCAGCCCCGAGCTCTAGCAGGCT 471
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         38 -----ArgLysGluSerLysLysProProAlaLysLeuGlnProArgAlaLeuAlaGlyT 56

Qy        472 GGCTCCGCCCGGAAGATGGAGGTCAAGCAGAAGGGGCAGAGGATGAACTGGAAGTCCGG 530
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         56 rpLeuArgProGluAspGlyGlyGlnAlaGluGlyAlaGluAspGluLeuGluValArg 75
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RESULT 12
ABU58046
ID ABU58046 standard; protein; 117 AA.
XX
AC ABU58046;
XX
DT 14-APR-2003 (first entry)
XX
DE Human PRO polypeptide #78.
XX
KW Human; PRO; cytostatic; tumour; cancer; breast; lung; stomach; liver;
KW horse; cow; dog; cat; sheep; pig; goat; rabbit; ADEPT;
KW antibody-dependent enzyme mediated prodrug therapy.
XX
OS Homo sapiens.
XX
PN US2003027163-A1.
XX
PD 06-FEB-2003.
XX
PF 15-NOV-2001; 2001US-00997666.
XX
PR 16-JUN-1997; 97US-0049787P.
PR 17-OCT-1997; 97US-0062250P.
PR 05-NOV-1997; 97WO-US020069.
PR 12-NOV-1997; 97US-0065186P.
PR 13-NOV-1997; 97US-0065311P.
PR 24-NOV-1997; 97US-0066770P.
PR 25-FEB-1998; 98US-0075945P.
PR 20-MAR-1998; 98US-0078910P.
PR 28-APR-1998; 98US-0083322P.
PR 07-MAY-1998; 98US-0084600P.
PR 28-MAY-1998; 98US-0087106P.
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PR 24-JUN-1998; 98US-0090445P.
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PR 01-JUL-1998; 98US-0091360P.
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PR 02-JUL-1998; 98US-0091626P.
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PR 07-JUL-1998; 98US-0091978P.
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PR 09-JUL-1998; 98US-0092182P.
PR 10-JUL-1998; 98US-0092472P.
PR 20-JUL-1998; 98US-0093339P.
PR 30-JUL-1998; 98US-0094651P.
PR 04-AUG-1998; 98US-0095282P.
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PR 16-SEP-1998; 98US-0100634P.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98US-0100858P.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 01-DEC-1998; 98WO-US025108.
PR 22-DEC-1998; 98US-0113296P.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 12-MAR-1999; 99US-0123957P.
PR 02-JUN-1999; 99WO-US012252.
PR 23-JUN-1999; 99US-0141037P.
PR 07-JUL-1999; 99US-0143048P.
PR 20-JUL-1999; 99US-0144758P.
PR 26-JUL-1999; 99US-0145698P.
PR 28-JUL-1999; 99US-0146222P.
PR 17-AUG-1999; 99US-0149396P.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 08-OCT-1999; 99US-0158663P.
PR 30-NOV-1999; 99WO-US028313.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 30-MAR-2000; 2000WO-US008439.
PR 15-MAY-2000; 2000WO-US013358.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 23-JUN-2000; 2000US-0213637P.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 07-SEP-2000; 2000US-0230978P.

Alignment Scores:

Pred. No.:	4.93e-24	Length:	117
Score:	326.00	Matches:	74
Percent Similarity:	53.19%	Conservative:	1
Best Local Similarity:	52.48%	Mismatches:	0
Query Match:	31.65%	Indels:	66
DB:	6	Gaps:	1

US-10-659-782A-11 (1-579) x ABU58046 (1-117)

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Qy        112 ATGCCCTCCCCAGGGACCGTCTGCAGCCTCCTGCTCCTCGGCATGCTCTGGCTGGACTTG 171
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MetProSerProGlyThrValCysSerLeuLeuLeuLeuGlyMetLeuTrpLeuAspLeu 20

Qy        172 GCCATGGCAGGCTCCAGCTTCCTGAGCCCTGAACACCAGAGAGTCCAGGTGAGACCTCCC 231
              |||||||||||||||||||||||||||||||||||||||||||||||  :::
Db         21 AlaMetAlaGlySerSerPheLeuSerProGluHisGlnArgValGln--Gln------- 37

Qy        232 CACAAAGCCCCACATGTTGTTCCAGCCCTGCCACTTAGCAACCAGCTCTGTGACCTGGAG 291

Db         37 ------------------------------------------------------------ 37
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Qy        292 CAGCAGCGCCATCTCTGGGCTTCAGTCTTCTCCCAGAGCACAAAGGACTCTGGGTCTGAC 351

Db         37 ------------------------------------------------------------ 37

Qy        352 CTCACTGTTTCTGGAAGGACATGGGGGCTTAGAGTCCTAAACAGACTGTTTCCCCCTTCC 411

Db         37 ------------------------------------------------------------ 37

Qy        412 AGCAGAGAAAGGAGTCGAAGAAGCCACCAGCCAAGCTGCAGCCCCGAGCTCTAGCAGGCT 471
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         38 -----ArgLysGluSerLysLysProProAlaLysLeuGlnProArgAlaLeuAlaGlyT 56

Qy        472 GGCTCCGCCCGGAAGATGGAGGTCAAGCAGAAGGGGCAGAGGATGAACTGGAAGTCCGG 530
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Db         56 rpLeuArgProGluAspGlyGlyGlnAlaGluGlyAlaGluAspGluLeuGluValArg 75
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RESULT 13
ABU59124
ID ABU59124 standard; protein; 117 AA.
XX
AC ABU59124;
XX
DT 28-APR-2003 (first entry)
XX
DE Novel human secreted or transmembrane protein PRO1066.
XX
KW Human; PRO; hypertrophy of neonatal heart; angiogenesis; wound healing;
KW cardiac insufficiency disorder; cancer; tumour; immune response;
KW adrenal cortical capillary endothelial growth; c-fos induction;
KW vascular endothelial growth factor inhibition; VEGF inhibition;
KW endothelial cell growth inhibitor; T-lymphocytes stimulation;
KW retinal neurons cell survival; rod photoreceptor cell survival;
KW retinal disorder; retinitis pigmentosum; kidney disorder;
KW mammalian kidney mesangial cell proliferation; Berger disease;
KW dermatitis; herpetiformis; Crohn's disease; chondrocyte proliferation;
KW chondrocyte redifferentiation; sports injury; arthritis.
XX
OS Homo sapiens.
XX
PN US2002132252-A1.
XX
PD 19-SEP-2002.
XX
PF 14-NOV-2001; 2001US-00990442.
XX
PR 16-JUN-1997; 97US-0049787P.
PR 17-OCT-1997; 97US-0062250P.
PR 05-NOV-1997; 97WO-US020069.
PR 12-NOV-1997; 97US-0065186P.
PR 13-NOV-1997; 97US-0065311P.
PR 24-NOV-1997; 97US-0066770P.
PR 25-FEB-1998; 98US-0075945P.
PR 20-MAR-1998; 98US-0078910P.
PR 28-APR-1998; 98US-0083322P.
PR 07-MAY-1998; 98US-0084600P.
PR 28-MAY-1998; 98US-0087106P.
PR 02-JUN-1998; 98US-0087607P.
PR 02-JUN-1998; 98US-0087609P.
PR 02-JUN-1998; 98US-0087759P.
PR 03-JUN-1998; 98US-0087827P.
PR 04-JUN-1998; 98US-0088021P.
PR 04-JUN-1998; 98US-0088025P.
PR 04-JUN-1998; 98US-0088026P.
PR 04-JUN-1998; 98US-0088028P.
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PR 11-JUN-1998; 98US-0088858P.
PR 11-JUN-1998; 98US-0088861P.
PR 11-JUN-1998; 98US-0088876P.
PR 12-JUN-1998; 98US-0089105P.
PR 16-JUN-1998; 98US-0089440P.
PR 16-JUN-1998; 98US-0089512P.
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PR 18-JUN-1998; 98US-0089801P.
PR 18-JUN-1998; 98US-0089907P.
PR 18-JUN-1998; 98US-0089908P.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 02-JUN-1999; 99WO-US012252.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 30-NOV-1999; 99WO-US028313.
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PR 20-DEC-1999; 99WO-US030911.
PR 06-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 30-MAR-2000; 2000WO-US008439.
PR 15-MAY-2000; 2000WO-US013358.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 01-DEC-2000; 2000WO-US032678.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-JUN-2001; 2001WO-US017800.
PR 20-JUN-2001; 2001WO-US019692.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 28-AUG-2001; 2001US-00941992.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi AJ, Baker KP, Botstein D, Desnoyers L, Eaton DL;
PI Ferrara N, Fong S, Gerber H, Gerritsen ME, Goddard A, Godowski PJ;
PI Grimaldi JC, Gurney AL, Kljavin IJ, Napier MA, Pan J, Paoni NF;
PI Roy MA, Stewart TA, Tumas D, Watanabe CK, Williams PM, Wood WI;

PI Zhang Z;
XX
DR WPI; 2003-247083/24.
DR N-PSDB; ABX80294.
XX
PT Novel isolated PRO polypeptides e.g., PRO826, PRO1068, PRO1184, PRO1346
PT and PRO1375, which stimulate proliferation of stimulated T-lymphocytes
PT are therapeutically useful for enhancing immune response and in cancer
PT treatments.
XX
PS Claim 12; Fig 186; 648pp; English.
XX
CC The invention describes an isolated human PRO polypeptide. The PRO
CC polypeptides are useful in detecting PRO polypeptides in a sample, in
CC linking a bioactive molecule to a cell expressing a PRO polypeptide, and
CC in modulating at least one biological activity of a cell expressing a PRO
CC polypeptide. PRO1312 stimulates hypertrophy of neonatal heart and is thus
CC useful for treating cardiac insufficiency disorders. PRO1154 and PRO1186
CC stimulate adrenal cortical capillary endothelial growth, and PRO536,
CC PRO943, PRO828, PRO826, PRO1068 or PRO535, PRO826, PRO819, PRO1126,
CC PRO1360 and PRO1387 induce c-fos in endothelial cells, and are thus
CC useful for treating conditions or disorders where angiogenesis would be
CC beneficial, e.g. wound healing and antagonist of this polypeptide are
CC useful for treating cancerous tumours. PRO812 inhibits vascular
CC endothelial growth factor (VEGF) stimulated proliferation of endothelial
CC cells and is thus useful for inhibiting endothelial cell growth in
CC mammals which would be beneficial in inhibiting tumour growth. PRO826,
CC PRO1068, PRO1184, PRO1346 and PRO1375 stimulate proliferation of
CC stimulated T-lymphocytes and are therapeutically useful for enhancing
CC immune response. PRO828, PRO826, PRO1068 or PRO1132 enhance survival of
CC retinal neurons cells (PRO1132 is also enhances survival/proliferation of
CC rod photoreceptor cells) and therefore are useful for treating retinal
CC disorders of injuries, e.g. retinitis pigmentosum, AMD. PRO819, PRO813
CC and PRO11066 induce proliferation of mammalian kidney mesangial cells,
CC and therefore are useful for treating kidney disorders associated with
CC decreased mesangial cell function such as Berger disease or other
CC nephropathies associated with dermatitis, herpetiformis or Crohn's
CC disease. PRO1310, PRO844, PRO1312, PRO1192 and PRO1387 induce the
CC proliferation and/or redifferentiation of chondrocytes in culture and are
CC thus useful for treating sports injuries, and arthritis. This is the
CC amino acid sequence of a novel human PRO protein
XX
SQ Sequence 117 AA;

Alignment Scores:

Pred. No.:	4.93e-24	Length:	117
Score:	326.00	Matches:	74
Percent Similarity:	53.19%	Conservative:	1
Best Local Similarity:	52.48%	Mismatches:	0
Query Match:	31.65%	Indels:	66
DB:	6	Gaps:	1

US-10-659-782A-11 (1-579) x ABU59124 (1-117)

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Qy        112 ATGCCCTCCCCAGGGACCGTCTGCAGCCTCCTGCTCCTCGGCATGCTCTGGCTGGACTTG 171
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Db          1 MetProSerProGlyThrValCysSerLeuLeuLeuLeuGlyMetLeuTrpLeuAspLeu  20

Qy        172 GCCATGGCAGGCTCCAGCTTCCTGAGCCCTGAACACCAGAGAGTCCAGGTGAGACCTCCC 231
              |||||||||||||||||||||||||||||||||||||||||||  :::
Db         21 AlaMetAlaGlySerSerPheLeuSerProGluHisGlnArgValGln--Gln------- 37

Qy        232 CACAAAGCCCCACATGTTGTTCCAGCCCTGCCACTTAGCAACCAGCTCTGTGACCTGGAG 291
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Db         37 ------------------------------------------------------------ 37

Qy        292 CAGCAGCGCCATCTCTGGGCTTCAGTCTTCTCCCAGAGCACAAAGGACTCTGGGTCTGAC 351
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Db         37 ------------------------------------------------------------ 37

Qy        352 CTCACTGTTTCTGGAAGGACATGGGGGCTTAGAGTCCTAAACAGACTGTTTCCCCCTTCC 411
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         37 ------------------------------------------------------------ 37

Qy        412 AGCAGAGAAAGGAGTCGAAGAAGCCACCAGCCAAGCTGCAGCCCCGAGCTCTAGCAGGCT 471
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Db         38 -----ArgLysGluSerLysLysProProAlaLysLeuGlnProArgAlaLeuAlaGlyT  56

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Db         56 rpLeuArgProGluAspGlyGlyGlnAlaGluGlyAlaGluAspGluLeuGluValArg  75
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RESULT 14
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XX
AC ABU82636;
XX
DT 26-JUN-2003 (first entry)
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DE Human secreted/transmembrane protein PRO1066.
XX
KW Human; PRO; secreted protein; transmembrane protein;
KW cardiac insufficiency disorders; angiogenesis; wound healing;
KW cancerous tumour; immune response; retinal disorder; sight loss;
KW retinitis pigmentosum; age-related macular degeneration; AMD;
KW kidney disorder; Berger disease; nephropathy; dermatitis; herpetiformis;
KW Crohn's disease; sports injury; arthritis.
XX
OS Homo sapiens.
XX
PN US2003032023-A1.
XX
PD 13-FEB-2003.
XX
PF 14-NOV-2001; 2001US-00990711.
XX
PR 16-JUN-1997; 97US-0049787P.
PR 17-OCT-1997; 97US-0062250P.
PR 05-NOV-1997; 97WO-US020069.
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PR 06-JAN-2000; 2000WO-US000376.
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PR 02-MAR-2000; 2000WO-US005841.
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PR 15-MAR-2000; 2000WO-US006884.
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PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 23-JUN-2000; 2000US-0213637P.
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PR 11-AUG-2000; 2000WO-US022031.

Alignment Scores:

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Score:	326.00	Matches:	74
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Best Local Similarity:	52.48%	Mismatches:	0
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US-10-659-782A-11 (1-579) x ABU82636 (1-117)

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Db          1 MetProSerProGlyThrValCysSerLeuLeuLeuLeuGlyMetLeuTrpLeuAspLeu 20

Qy        172 GCCATGGCAGGCTCCAGCTTCCTGAGCCCTGAACACCAGAGAGTCCAGGTGAGACCTCCC 231
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Db         21 AlaMetAlaGlySerSerPheLeuSerProGluHisGlnArgValGln--Gln------- 37

Qy        232 CACAAAGCCCCACATGTTGTTCCAGCCCTGCCACTTAGCAACCAGCTCTGTGACCTGGAG 291

Db         37 ------------------------------------------------------------ 37

Qy        292 CAGCAGCGCCATCTCTGGGCTTCAGTCTTCTCCCAGAGCACAAAGGACTCTGGGTCTGAC 351

Db         37 ------------------------------------------------------------ 37

Qy        352 CTCACTGTTTCTGGAAGGACATGGGGGCTTAGAGTCCTAAACAGACTGTTTCCCCCTTCC 411

Db         37 ------------------------------------------------------------ 37

Qy        412 AGCAGAGAAAGGAGTCGAAGAAGCCACCAGCCAAGCTGCAGCCCCGAGCTCTAGCAGGCT 471
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Db         38 -----ArgLysGluSerLysLysProProAlaLysLeuGlnProArgAlaLeuAlaGlyT 56

Qy        472 GGCTCCGCCCGGAAGATGGAGGTCAAGCAGAAGGGGCAGAGGATGAACTGGAAGTCCGG 530
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Db         56 rpLeuArgProGluAspGlyGlyGlnAlaGluGlyAlaGluAspGluLeuGluValArg 75

RESULT 15
ABO17836
ID   ABO17836 standard; protein; 117 AA.
XX
AC   ABO17836;
XX
DT   26-AUG-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO1066.
XX
KW   Human; secreted and transmembrane protein; PRO; antiinflammatory;
KW   antiarteriosclerotic; cardiant; anti-infertility; anti-HIV; cytostatic;
KW   antidiabetic; gene therapy; tumour necrosis factor (TNF)-alpha release;
KW   TNF-alpha release; cell proliferation; cell differentiation;
KW   gene expression modulator; proteoglycan release; cytokine release;
KW   tumour; inflammatory disease; organ failure; atherosclerosis;
KW   cardiac injury; infertility; birth defect; premature aging; AIDS;
KW   acquired immunodeficiency syndrome; cancer; diabetic complication;
KW   chromosome mapping; gene mapping; pharmaceutical; diagnostic; biosensor;
KW   bioreactor; tissue typing.
XX
OS   Homo sapiens.
XX
PN   US2003032156-A1.
XX
PD   13-FEB-2003.
XX
PF   06-MAY-2002; 2002US-00140474.
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PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
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PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
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PR   05-JAN-2000; 2000WO-US000219.
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PR   06-JAN-2000; 2000WO-US000376.
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PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
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XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-341980/32.
DR N-PSDB; ACD24073.
XX
PT New secreted and transmembrane PRO nucleic acids, for treating
PT inflammation, organ failure, atherosclerosis, cardiac injury,
PT infertility, birth defects, premature aging, axquired immunodeficiency
PT syndrome (AIDS), or cancer.
XX
PS Claim 12; Fig 442; 660pp; English.
XX
CC The invention describes an isolated nucleic acid (I) comprising, or which
CC has 80 % sequence identity to, or the full-length coding sequence of, one
CC of 275 nucleotide sequences, and which encodes a corresponding
CC polypeptide selected from 275 amino acid sequences, where all sequences
CC are given in the specification. The polypeptide encoded by (I) is used to
CC detect PRO polypeptides, link a bioactive molecule to a cell expressing a
CC PRO polypeptide, modulate a biological activity of a cell, stimulate the
CC release of tumour necrosis factor (TNF)-alpha from human blood, modulate
CC the uptake of glucose or free fatty acid by cells, stimulate or inhibit
CC the proliferation or differentiation of cells or gene expression,
CC stimulate the release of proteoglycans, stimulate the release of cytokine
CC from peripheral blood mononuclear cells, inhibit the binding of A-peptide
CC to factor VIIA, or detect the presence of tumour in a mammal. The nucleic
CC acid and polypeptide encoded by it, are useful for treating inflammatory
CC diseases, organ failure, atherosclerosis, cardiac injury, infertility,
CC birth defects, premature aging, acquired immunodeficiency syndrome
CC (AIDS), cancer, or diabetic complications. The nucleic acid is useful as
CC hybridisation probes, in chromosome and gene mapping, and in generating
CC antisense RNA or DNA. The polypeptides are useful as pharmaceuticals,
CC diagnostics, biosensors or bioreactors. Both are useful in tissue typing.
CC This is the amino acid sequence of a novel human secreted and
CC transmembrane PRO polypeptide
XX
SQ Sequence 117 AA;

Alignment Scores:

Pred. No.:	4.93e-24	Length:	117
Score:	326.00	Matches:	74
Percent Similarity:	53.19%	Conservative:	1
Best Local Similarity:	52.48%	Mismatches:	0
Query Match:	31.65%	Indels:	66
DB:	6	Gaps:	1

US-10-659-782A-11 (1-579) x ABO17836 (1-117)

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Qy        172 GCCATGGCAGGCTCCAGCTTCCTGAGCCCTGAACACCAGAGAGTCCAGGTGAGACCTCCC 231
              |||||||||||||||||||||||||||||||||||||||||||||||  :::
Db         21 AlaMetAlaGlySerSerPheLeuSerProGluHisGlnArgValGln--Gln------- 37

Qy        232 CACAAAGCCCCACATGTTGTTCCAGCCCTGCCACTTAGCAACCAGCTCTGTGACCTGGAG 291
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Qy        292 CAGCAGCGCCATCTCTGGGCTTCAGTCTTCTCCCAGAGCACAAAGGACTCTGGGTCTGAC 351
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Db         37 ------------------------------------------------------------ 37

Qy        352 CTCACTGTTTCTGGAAGGACATGGGGGCTTAGAGTCCTAAACAGACTGTTTCCCCCTTCC 411
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Db         37 ------------------------------------------------------------ 37

Qy        412 AGCAGAGAAAGGAGTCGAAGAAGCCACCAGCCAAGCTGCAGCCCCGAGCTCTAGCAGGCT 471
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Db         38 -----ArgLysGluSerLysLysProProAlaLysLeuGlnProArgAlaLeuAlaGlyT 56

Qy        472 GGCTCCGCCCGGAAGATGGAGGTCAAGCAGAAGGGGCAGAGGATGAACTGGAAGTCCGG 530
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